

## Best Practices for High-Quality Audio: Limiting the number of open microphones

In a typical meeting environment with multiple microphones, sound engineers recognize three fundamental best practices to optimize audio quality and meeting intelligibility: getting the microphone as close as possible to the sound source, using distributed speakers, and limiting the number of open microphones. This last one is a simple technique that makes a big difference.

### What are the main advantages of limiting the number of open microphones?

- > Increase speech clarity and intelligibility both in the room and on the far end.
- > Improve Signal to Noise Ratio (SNR).
- > Reduce microphone comb filtering by limiting voice pickup to a single microphone.
- > Limit pickup of intermittent table noises such as paper shuffling, finger drumming, side conversations and a plethora of other invading sounds.
- > Give more flexibility to operators to control the levels on open microphones. It is very difficult to properly adjust levels when many mics are on.
- > Create a more structured meeting environment inducing participants to listen more carefully and think before they speak.
- > Control when you officially go on record. An LED light ring indicates when the microphone is active.
- > Improve gain before feedback.

It is a fact that audio quality rapidly deteriorates as the number of open microphones increases.

### What applications most benefit from it?

#### IN-ROOM SPEECH INTELLIGIBILITY

Conference microphones help increase audio intelligibility for participants in the room. They quickly realize that pushing a button to speak results in improved clarity and listening comfort, as well as more structured and productive meetings.

#### AUDIO RECORDING

Conference microphones help capture great audio for recording and archiving purposes. With a limited number of open microphones to manage, systems operators can comfortably adjust audio levels as needed during the meeting.

#### STREAMING

When your sessions are broadcasted to the general public, you need to produce professional quality audio and you also need to control when to officially go on record. If all microphones are on, side conversations might unknowingly get broadcasted.

#### VIDEOCONFERENCING

Background noises captured by microphones lead to poor sound quality for listeners on the other end. Limiting the number of open microphones allows to capture voice, not noise, making video conferencing a positive experience for participants.

### How many microphones can be active at one time?

In the TAIDEN wired conference systems, up to 6 microphones can be active at one time, including chairman units. For the TAIDEN wireless conference system, the limit is 4 microphones. However, best practices command to limit the number of open microphones to the minimum necessary to operate the meeting.

### Why is there not an "all open" microphone activation mode?

High quality conference systems do not provide an "all open" mode. This sounds restrictive, but we care about great audio and limiting the number of open microphones is simply the best way to increase intelligibility on the audio signal. Some systems allow all microphones to be on at once, leaving it up to the users to mute their unit when they are done speaking. In practice, users forget to mute their mics, feedback and excessive pickup of background noise occurs, meetings can become a cacophony. It is our job to design technology solutions that provide high quality audio for your meeting; the TAIDEN conference systems follow all best practices to achieve optimum speech intelligibility.

## With limitations on the number of open microphones, what configurations are available to operate the system?

The TAIDEN conference microphones are designed to operate in a variety of modes to allow for different meeting configurations and levels of control by various parties.

- > Open: a microphone in the speaking list must be deactivated before a new microphone can be activated.
- > Override: a "first in, first out" method of managing the speaking list.
- > Voice: the microphone is activated when the delegate speaks. The activation/deactivation sensitivity is adjustable.
- > Apply: an operator is able to pre-select the delegate sequence and activate/deactivate microphones. Delegates can make a request to speak by pressing the mic on/off button. Speaking and request-to-speak lists can be displayed on screens. This mode requires operator participation.
- > PTT (Push to talk): a delegate must press and hold the microphone on/off button to activate the microphone.

With so many options to choose from, users will always be able to use the microphone whenever they wish to speak and be heard clearly.

## MEDIA VISION

The Conference Company

[www.media-vision.com](http://www.media-vision.com) | [info@media-vision.com](mailto:info@media-vision.com)

Media Vision is a leading provider of professional conference microphone systems in North America and Europe. We work with systems integrators and consultants to design conferencing solutions that improve the audio intelligibility in the room and on the far end for distance communication.

## Warranty and Support

- > 5 year warranty
- > Expertise with local support
- > High-profile references
- > Rental stock available

### France (Paris)

13 rue de la Perdrix  
93290 Tremblay-en-France  
Tel: +33 (0)1 75 63 05 31

### Switzerland (Geneva)

Chemin J-Ph. de Sauvage, 37  
1219 Châtelaine  
Tel: +41 (0) 22 518 16 71

### Belgium (Brussels)

Rue de Trèves, 49  
1040 Bruxelles  
Tel: +32 (0) 2 721 13 32

### Denmark (Copenhagen)

Bredgade 30  
1260 København K  
Tel: +45-89887835

### Germany & Austria

Tel: +49 (0) 160 416 1030

### Canada (Toronto)

Tel: +1.416.694.5425

### USA (San Francisco)

1078 60th Street  
Oakland, CA 94608  
Tel: +1.415.391.9090

### USA (Washington DC)

7008 Virginia Manor Road  
Beltsville, MD 20705  
Tel: +1.415.391.9090

### USA (New York)

424 W. 33rd Street #480  
New York, NY 10001  
Tel: +1.415.391.9090